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NISSAN

February, 2011 Russell Vare EV Regional Manager



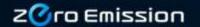


Nissan LEAF – Product Highlights

- Zero emission
- Affordable
- Stimulating acceleration
- Quietness
- 100-mile range sufficient for daily use
- Advanced intelligent transportation (IT) system



Size	5-door compact hatchback		
Capacity	5 Adults		
Range	100 miles (US LA4)		
Top Speed	90 mph		
Battery	Laminated Li-ion		
Capacity/Power	24 kWh/over 90kW		
Motor	High-response synchronous AC Motor (80kW/280Nm)		
IT System	Integrated communication system		
MSRP	\$32,780 (\$25,280 w/ tax credit) or \$349/month lease		



Getting to Mass Market requires Scale Battery / Nissan EV Manufacturing Capacity



off

France, Flin Battery

- Battery 100.000 units/year
- Production from 2012

UK, Sunderland Battery & EV

- Battery 60,000 units/year
- Production from 2012
- FV 50,000 units/year
- Production from 2013



Ground-breaking April 27th

Japan, Oppama

- EV 50,000 units/year
- Production from 2010

Portugal, Avei **Battery**

- Battery 50,000 units/year
- Production from 2012

USA, Smyrna Battery & EV

- Battery 200,000 units/year
- F\/ 150,000 units/year
- Production from 2012.

Japan, Zama Battery

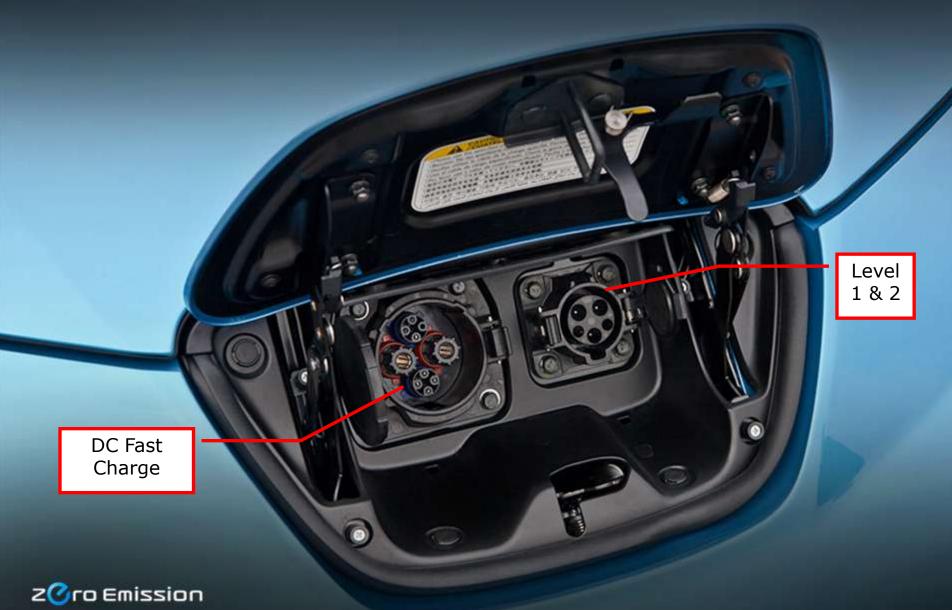
- Battery 90,000units/year (~2011)
- Production from 2010





Nissan LEAF Charge Ports







Charging time and mileage

- DC Quick charging: 80% in about 30 min
- Normal charging

Voltage A	Ampere	Charging time [hr] Empty lighted to full charged	Charging time and mileage		
			2hr	4hr	6hr
AC240V	16A	About 7-8 hr	+ 25mile	+50mile	+75mile
AC120V	12A	About 20-21 hr	+10mile	+20mile	+30mile



Nissan / AeroVironment Home Charging



- Goal
 - Simple, one-stop shop for the consumer have charging equipment installed at home
- AeroVironment selected as Nissan's preferred vendor for residential charging equipment
 - Includes all US markets
- AeroVironment provides
 - The charging dock
 - Manages permitting + installations
 - Trains contractor network







Nissan LEAF Launch Markets





EV Market Readiness



1. Incentives for consumers

- Financial (tax credit, free permitting, free charging, subsidized charger installation)
- Non-financial (HOV lane access, preferential parking, etc.)

2. Streamlined EVSE permit process

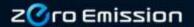
- Fast, easy permit application process (online permitting)
- Expedient installation approvals or installer self certification

3. Charging Infrastructure

- Home
- Workplace
- Public

4. Education and Public Outreach

- Educate the public on environmental, social, and financial benefits of electric drive vehicles



2. Streamline permitting



Streamlined EVSE permit process

- Fast, easy permit application process (online permitting)
- Expedite installation approvals or installer self certification
- Can we do better than a standard electrical permit?
- Think long-term market expansion

Examples

- City of Los Angeles
 - Online permit
- City of Houston
 - 24 hour commitment for inspection
- State of Oregon
 - Minor Label program (self-certification with spot inspections)



3. Charging Infrastructure



Expand Charging Station Network

- Residential, Workplace, Public

Examples

- Nissan has installed 110 public stations in So Cal
 - More to come nationwide
- City of Santa Monica
 - Upgrading legacy stations to J1772
- LADWP
 - subsidizing residential EVSE purchase
- NRG Houston
 - Investment in residential, level 2 and DC Fast Charge infrastructure for a subscription fee







the new car